PATENT

U.S. PTO

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Mail Stop Patent Application Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

NEW APPLICATION TRANSMITTAL Under 37 CFR § 1.53(b)

Transmitted herewith for filing is the patent application of

Inventor(s):

Mark Vandlik and Tom Westberg

WARNING: 37 C.F.R. § 1.41(a)(1) points out:

'(a) A patent is applied for in the name or names of the actual inventor or inventors.

(1) The inventorship of a nonprovisional application is that inventorship set forth in the oath or declaration as prescribed by § 1.63, except as provided for in § 1.53(d)(4) and § 1.63(c). If an oath or declaration as prescribed by § 1.63 is not filed during the pendency of a nonprovisional application, the inventorship is that inventorship set forth in the application papers filed pursuant to § 1. 53(b), unless a petition under this paragraph accompanied by the fee set forth in § 1.17(i) is filed supplying or changing the name or names of

the inventor or inventors.

For (title):

Blood Processing Systems with Fluid Flow Cassette with a Pressure

Actuated Pump chamber and In-Line Air Trap

1.	Type of Application This new application is for a(n) [x] Original (nonprovisional)
	[x] Original (nonprovisional) [] Design [] Plant
NOTE:	If one of the following 3 items apply then complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF A PRIOR U.S. APPLICATION CLAIMED and a NOTIFICATION IN PARENT APPLICATION OF THE FILING OF THIS CONTINUATION APPLICATION.
	[] Divisional. [] Continuation. [] Continuation-in-part (C-I-P).
2.	Benefit of Prior U.S. Application(s) (35 U.S.C. 119(e), 120, or 121) [x] The new application being transmitted claims the benefit of prior U.S. application(s).
	The new application being transmitted claims the better of prior 0.3. application (s). Enclosed are ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.
	Enclosed are ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT
United	Enclosed are ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.
United	Enclosed are ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED. CERTIFICATION UNDER 37 C.F.R. 1.10° y certify that this New Application Transmittal and the documents referred to as attached therein are being deposited with the States Postal Service on this date 20 April 2004, in an envelope as 'Express Mail Post Office to Addressee' mailing Label of EV 31369309 10.5, addressed as follows: Mail Stop Patent Application, ssioner for Patents, PO Box 1450, Alexandria, VA 22313-1450 Judith Dunaway
United	Enclosed are ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED. CERTIFICATION UNDER 37 C.F.R. 1.10° y certify that this New Application Transmittal and the documents referred to as attached therein are being deposited with the States Postal Service on this date 20 April 2004, in an envelope as 'Express Mail Post Office to Addressee' mailing Label or 50 10 69300000000000000000000000000000000000

(Application Transmittal - page 1 of 5)

	A. Required for filing date under 37 C.F.R. § 1.53(b) (Regular) or 37 C.F.R. § 1.153 Design) Application
•	Pages of specification Pages of claims Abstract Sheets of drawing [x] formal [] informal
	B. Other documents enclosed:
4.	Additional papers enclosed
	 Preliminary Amendment Information Disclosure Statement (37 C.F.R. 1.98) Form PTO-1449 (PTO/SB/08A and 08B) Citations Declaration of Biological Deposit Submission of "Sequence Listing," computer readable copy and/or amendment pertaining thereto for biotechnology invention containing nucleotide and/or amino acid sequence. Authorization of Attorney(s) to Accept and Follow Instructions from Representative Special Comments Other
5.	Declaration or oath
	[] Enclosed [] newly executed [] copy from parent application identified above
	Executed by (check all applicable boxes) [] inventor(s). [] legal representative of inventor(s). [] joint inventor or person showing a proprietary interest on behalf of inventor who refused to sign or cannot be reached. [] This is the petition required by 37 CFR 1.47 and the statement required by 37 CFR 1.47 is also attached. See Item 13 below for fee.
	 [x] Not Enclosed. [x] Application is made by a person authorized under 37 C.F.R. 1.41(c) on behalf of all the above named inventor(s). (The declaration or oath, along with the surcharge required by 37 CFR 1. 16(e) can be filed subsequently).
6.	Inventorship Statement The inventorship for all the claims in this application are: [x] The same. [] Not the same. An explanation, including the ownership of the various claims at the time the last claimed invention was made [] is submitted. [] will be submitted.

Papers Enclosed

3.

7.	Language [x] English [] Non-English [] The attached translation includes a statement that the translation is accurate. C.F.R. 1.52(d).						lation is accurate. 37		
8.	Assignment [x] An assignment of the Invention to Baxter International Inc. [] is attached. A separate [] COVER SHEET FOR ASSIGNMENT (DOCUMENT ACCOMPANYING NEW PATENT APPLICATION or [] FORM PTO 1595 is also attached. [x] will follow. [] was filed in the parent application identified above								
9.	CERT	FIED CO	PY						
	Certifie	ed copy(i	es) of applic	cation(s)				·	
**	Country				· Appln. No.			Filed	
	Country				Appln. No.	•		Filed	
	Country	. , , , , , , , , , , , , , , , , , , ,	·	.	Appln. No.			Filed	
	Country	•			Appln, No.			Filed	
	from w	hich prio	rity is claim	ed					
•	[]	is (are) will folk	attached. ow.					·	
NOTE:	The foreign application forming the basis for the clam for priority must be referred to in the oath or declaration. 37 CFR 1.55(a) and 1.63.								
10.		Fee Calculation (37 C.F.R. 1.16)							
	A.	[×]	Regular a	pplication					
	_			(LAIMS AS FIL	.ED	_		
				Number Filed	Number Included in Basic Fee	Number Extra	Rate	Basic Fee 37 CFR 1.16(a) \$770.00	
Total (Claims 37	CFR 1.16(c) ·	1	-20 =	(19)	x \$ 18.00	\$0	
Indepe	endent Cla	ims (37 CF	R 1.16(b)	1	-3 =	(2)	x \$ 86.00	\$0	
Multiple Dependent claim(s) if any (37 CFR 1.16(d))			0			\$290.00	\$0		
FILIN	IG FEE	CALCUL	ATION					\$770	
		[]	Amendme	ent deleting	ing extra claim g multiple-depe is not being pa Filing Fee	endencies e	enclosed. ime.	770.00	

	В.	[]	Design application (\$340.00 - 37 CFR 1.16(f)) Filing Fee Calculation	
	C. ,	[]	Plant application (\$530.00 - 37 CFR 1.16(g))	
			Filing Fee Calculation	
1.	Smal	Entity	Statement 5 - 4 to 27 CER 4	0 and 4.27 and is entitled to small
	[]		applicant is a Small Entity as defined by 37 CFR 1. status.	
		[]	Small Entity Filing Fee:	
2.			Being Made at This Time	
	[]	[]	No filing fee is to be paid at this time. (This and the surcharge required by 37 C.F.R. 1	. 16(e) can be paid subsequently.)
	[x]	Enclo		770.00
		[x]	Filing fee Recording assignment	
		į J	(\$40.00; 37 C.F.R. 1.21(h))	
		[]	Petition fee for filing by other than all the	
			inventors or person on behalf of the inventor where inventor refused to sign or cannot be	
			reached	
			(\$130.00; 37 C.F.R. 1.47 and 1.17(i)	
		[]	For processing an application with a	_
		• •	specification in a non-English language	
			(\$130.00; 37 C.F.R. 1.52(d) and 1.17(k)	
		[]	Processing and retention fee (\$130.00; 37 C.F.R. 1.53(d) and 1.21(l))	·
		[]	Fee for international-type search report	
			(\$40.00; 37 C.F.R. 1.21(e))	
			Total fees enclosed	770.00
13.	Meth	nod of P	ayment of Fees	
	[x]	Chec	k in the amount of \$ 770.00	
	[]	Char	ge Account No in the amount of plicate of this transmittal is attached.	·
		A QU	plicate of this transmittal is attached.	
14.		orizatio	on to Charge Additional Fees Commissioner is hereby authorized to charge the fo	allowing additional fees by this paper
	[x]	end i	during the entire pendency of this application to Ac	count No. 06-2360
		[x]	37 C F R. 1.16(a). (f) or (g) (filing fees)	
		[x]	27 C E P 1 16(b) (c) and (d) (presentation of (extra claims)
		[x]	37 C.F.R. 1.16(e) (surcharge for filing the basic f	riing tee and/or declaration on a date
		f v 1	later than the filing date of the application) 37 C.F.R. §§ 1.17(a)(I-5) (extension fees pursu	uant to § 1.136(a)).
		[x]	27 C F P 1 17 (application processing tees)	
			37 C.F.R. 1.18 (issue fee at or before mailing of	Notice of Allowance, pursuant to 37
			C.F.R. 1.311(b))	

15.	Instruction	is as to Overpayment	•				
,	[x] Cre	edit Account No. 06-2360 fund	Wux				
Tel. No.	o. 29,243 .: (262) 783 ier No.: 263		SIGNATURE OF PRACTITIONER Daniel D. Ryan (type or print name of attorney) RYAN KROMHOLZ & MANION, S.C. (P.O. Address) Post Office Box 26618				
		_	MILWAUKEE, WISCONSIN 53226				
[x]	Statem	ent Where Additional Pages a					
	[×]	[x] Plus Added Page for New Application Transmittal Where Benefit of Prior U.S Application(s) Claimed					
[]	(if no fu	Statement Where No Further Pages Added (if no further pages form a part of this Transmittal, then end this Transmittal with this page a check the following item)					
	[]	This transmittal ends with t	this page.				

ADDED PAGES FOR APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED

NOTE: "In order for an application to claim the benefit of a prior filed copending national application, the prior application must name as an inventor at least one inventor named in the later filed application and disclose the named inventor's invention claimed in at least one claim of the later filed application in the manner provided by the first paragraph of 35 U.S.C. 112." 37 CFR 1.78(a).

NOTE: "IN ADDITION THE PRIOR APPLICATION MUST BE (1) COMPLETE AS SET FORTH IN S 1.51, OR (2) ENTITLED TO A FILING DATE AS SET FORTH IN S 1.53(B) AND INCLUDE THE BASIC FILING FEE SET FORTH IN S 1.16; OR (3) ENTITLED TO A FILING DATE AS SET FORTH IN S 1.53(B) AND HAVE PAID THEREIN THE PROCESSING AND RETENTION FEE SET FORTH IN S 1.21(L) WITHIN THE TIME PERIOD SET FORTH IN S 1.53(D). "37 CFR 1.78(A).

16. Relate Back-35 U.S.C. 120

NOTE: "ANY APPLICATION CLAIMING THE BENEFIT OF A PRIOR FILED COPENDING NATIONAL OR INTERNATIONAL APPLICATION MUST CONTAIN OR BE AMENDED TO CONTAIN IN THE FIRST SENTENCE OF THE SPECIFICATION FOLLOWING THE TITLE A REFERENCE TO SUCH PRIOR APPLICATION IDENTIFYING IT BY SERIAL NUMBER AND FILING DATE OR INTERNATIONAL APPLICATION NUMBER AND INTERNATIONAL FILING DATE AND INDICATING THE RELATIONSHIP OF THE APPLICATIONS." 37 CFR 1.78(A). SEE ALSO THE NOTICE OF APRIL 28, 1987 (1079 O.G. 32 TO 46).

[X] The specification includes the following recitation:

Related Applications:

This application claims the benefit of co-pending application Serial No. 09/390,265 filed 3 September 1999 and entitled "Fluid Pressure Actuated Blood Pumping Systems and Methods with Continuous Inflow and Pulsatile Outflow Conditions". This application also claims the benefit of copending patent application Serial No. 09/390,268 filed 3 September 1999 and entitled "Programmable Fluid Pressure Actuated Blood Processing Systems and Methods".

NOTE: THE PROPER REFERENCE TO A PRIOR FILED PCT APPLICATION WHICH ENTERED THE U.S. NATIONAL PHASE IS THE U.S. SERIAL NUMBER AND THE FILING DATE OF THE PCT APPLICATION WHICH DESIGNATED THE U.S.

NOTE: (1) WHERE THE APPLICATION BEING TRANSMITTED ADDS SUBJECT MATTER TO THE INTERNATIONAL APPLICATION THEN THE FILING CAN BE AS A CONTINUATION-IN-PART OR (2) IT IS DESIRED TO DO SO FOR OTHER REASONS, E.G. WHERE NO DECLARATION IS AVAILABLE, NO ENGLISH TRANSLATION IS AVAILABLE OR NO FEE IS TO BE PAID ON FILING THEN THE FILING CAN BE AS A CONTINUATION. IN THESE CASES THE INTERNATIONAL APPLICATION DESIGNATING THE U.S. IS TREATED AS THE PARENT CASE IN THE U.S. AND IS ANALTERNATIVE TO THE COMPLETION OF THE INTERNATIONAL APPLICATION UNDER 35 U.S.C. 371(C)(4) WHICH MUST MEET THE REQUIREMENTS OF 37 CFR 1.61(A). THIS ALTERNATIVE PERMITS THE COMPLETION OF THE FILING REQUIREMENTS WITHIN ANY TERM SET BY THE PTO UNDER 37 CFR 1.53(D) TO WHICH THE EXTENSION PROVISIONS OF 37 CFR 1.136(A) APPLY. (WHEREAS, IF THE FILING IS AS AN INTERNATIONAL APPLICATION ENTERING THE U.S. STAGE THEN THE FEE, DECLARATION AND/OR ENGLISH TRANSLATION (WHERE NECESSARY) IS DUE WITHIN 20 MONTHS OF THE PRIORITY DATE BUT CAN BE PAID WITHIN 22 MONTHS OF THE PRIORITY DATE (OR IS DUE WITHIN 30 MONTHS OF THE PRIORITY DATE BUT CAN BE SUBMITTED WITHIN 32 MONTHS OF THE PRIORITY DATE BUT CAN BE SUBMITTED WITHIN 32 MONTHS OF THE PRIORITY DATE BUT CAN BE SUBMITTED WITHIN 32 MONTHS OF THE PRIORITY DATE BUT CAN BE SUBMITTED WITHIN 32 MONTHS OF THE PRIORITY DATE BUT CAN BE SUBMITTED WITHIN 32 MONTHS OF THE PRIORITY DATE BUT CAN BE SUBMITTED WITHIN 32 MONTHS OF THE PRIORITY DATE BUT CAN BE SUBMITTED WITHIN 32 MONTHS OF THE PRIORITY DATE BUT CAN BE SUBMITTED WITHIN 32 MONTHS OF THE PRIORITY DATE BUT CAN BE SUBMITTED WITHIN 32 MONTHS OF THE PRIORITY DATE BUT CAN BE SUBMITTED WITHIN 32 MONTHS OF THE PRIORITY DATE BUT CAN BE SUBMITTED WITHIN 32 MONTHS OF THE PRIORITY DATE BUT CAN BE SUBMITTED WITHIN 32 MONTHS OF THE PRIORITY DATE BUT CAN BE SUBMITTED WITHIN 32 MONTHS OF THE PRIORITY DATE BUT CAN BE SUBMITTED WITHIN 32 MONTHS OF THE PRIORITY DATE BUT CAN BE SUBMITTED WITHIN 32 MONTHS OF THE PRIORITY DATE BUT CAN BE SUBMITTED WITHIN 32 MONTHS OF THE PRIORITY DATE BUT CAN BE

NOTE: THE DEADLINE FOR ENTERING THE NATIONAL PHASE IN THE U.S. FOR AN INTERNATIONAL APPLICATION WAS CLARIFIED IN THE NOTICE OF APRIL 28, 1987 (1079 O.G. 32 TO 46) AS FOLLOWS:

"The Patent and Trademark Office considers the International application to be pending until the 22nd month from the priority date if the United States has been designated and no Demand for International Preliminary Examination has been filed prior to the expiration of the 19th month from the priority date and until the 32nd month from the priority date if a Demand for International Preliminary Examination which elected the United States of America has been filed prior to the expiration of the 19th month from the priority date, provided that a copy of the international application has been communicated to the Patent

and Trademark Office within the 20 or 30 month period respectively. If a copy of the international application has not been communicated to the Patent and Trademark Office within the 20 or 30 month period respectively, the international application becomes abandoned as to the United States 20 or 30 months from the priority date respectively. These periods have been placed in the rules as paragraph (h) of S 1.494 and paragraph (i) of S 1.495. A continuing application under 35 U.S.C. 365(c) and 120 may be filed anytime during the pendency of the international application."

17.	Relate Back-35 U.S.C. 119 Priority Claim for Prior	Application
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application. 37 cfr 1.60(c). (Dealing with the continuation situation).

	count	ry		appl. no	0.	filed on	
	The c	been	copy (ies filed on . e) attach	has (have)	_ in prior ap	plication	which was filed on
VARNIN	Bu ap is di th th fo	ureau may pplication. placed in a sposed of e prosecut e folders a lders, mak antinuing a	not be relative in the relation of a country in the nation of a country in the suitable in polication a	ied on without any necause the certified of is not assigned a U. all stage is not enterenting application. At the continuity application of the continuity applications are the continuity.	eed to tile a Copy of the prio. S. Serial Num. d. Therefore so an alternative ving application after the certification, the prior the prior the prior the certification, the prior the prior the prior the certification.	entitied Copy of this ber unless the natio uch certified copies vould be to physica . The resources re and copies enter an	icated to the PTO by the International e priority application in the continuing immunicated by the International Bureau onal stage is entered. Such folders are may not be available if needed later in illy remove the priority documents from quired to request transfer, retrieve the d make a record of such copies in the iders of international applications which
18.	Main	tenance	e of Cop	endency of Pric	or Applicat	ion	
NOTE:	The P1	TO finds it	useful if a		ed in the prior a		g the term for response is filed with the
	A.	[]	Exten	application uni	e and resp	onse extends	the term in the pending prior attached
	В.	[]	Cond []	A conditional p	petition for e	extension of tin	Prior Application ne is being filed in the pending he prior application is attached
19.	Furti	her Inve	ntorshi	p Statement Wi	nere Benef	it of Prior App	olication(s) Claimed
NOTE:	of the property and the property and the last the inventors named in the property.						
NOTE:	declar additio	ation as re onal subject	equired by it matter be	§ 1.63 must be filed ing claimed, addition ich discloses and clai nd the application mu	. In those situi al inventors ma ime only subjet	atrons where a nev by be named in the ct matter disclosed ventors the same o	Il disclosure by amendment, an oath or v oath or declaration is required due to continuing application. In a continuation In a prior application, no additional oath or less than all the inventors in the prior

	(a)		This application discloses and claims only subject matter disclosed in the prior application whose particulars are set out above and the inventor(s) in this application are [] the same. [] the following inventor(s) have been deleted:				
			[] the following inventor(s) have been added:				
	(b)	[]	This application discloses and claims additional disclosure and a new declaration or oath is being filed. With respect to the prior application the inventor(s) in this application are [] the same. [] the following inventor(s) have been deleted:				
			[] the following inventor(s) have been added:				
	(c)		ventorship for all the claims in this application are the same. not the same, and an explanation, including the ownership of the various claims at the time the last claimed invention was made [] is submitted. [] will be submitted.				
20.	Aband	Please when	at of Prior Application (if applicable) e abandon the prior application at a time while the prior application is pending or the petition for extension of time or to revive in that application is granted and this application is granted a filing date so as to make this application copending aid prior application.				
NOTE:	CONTIN OF TIME APPLIC	'UATION- E OR A F ATION CO	THE NOTICE OF MAY 13, 1983 (103, TMOG 6-7) THE FILING OF A CONTINUATION OR IN-PART APPLICATION IS A PROPER RESPONSE WITH RESPECT TO A PETITION FOR EXTENSION PETITION TO REVIVE AND SHOULD INCLUDE THE EXPRESS ABANDONMENT OF THE PRIOR DIDITIONED UPON THE GRANTING OF THE PETITION AND THE GRANTING OF A FILING DATE TO G APPLICATION.				